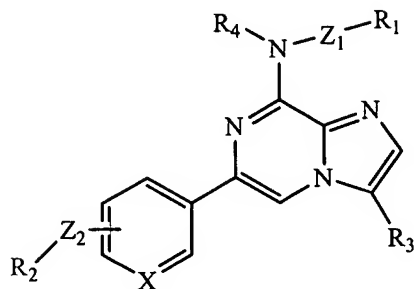


1. A compound having Formula 1:



Formula 1

a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, prodrug, or mixture thereof, wherein

$R_1$  is hydrogen; cyclo-(C<sub>3</sub>-C<sub>6</sub> alkyl)-methyl; straight or branched chain C<sub>1</sub>-C<sub>7</sub> alkyl, in which the branched alkyl chains are allowed to also form a 3-7 member heteroalkyl or alkyl ring; sulfonamide; C<sub>1</sub>-C<sub>6</sub> alkoxy; (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy; (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl; mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl); or phenyl or heteroaryl ring which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, sulfonamide, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, -S(C<sub>1</sub>-C<sub>6</sub> alkyl), mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester;

$R_2$  is straight or branched chain C<sub>1</sub>-C<sub>7</sub> alkyl, in which the branched alkyl chains are allowed to also form a 3-7 member heteroalkyl or alkyl ring; cyclo-(C<sub>3</sub>-C<sub>6</sub> alkyl)-methyl; C<sub>1</sub>-C<sub>6</sub> alkoxy; (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy; (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl; phenyl or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; phenoxy phenyl where each phenyl may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl,

mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; phenyl or heteroaryl piperazine where the phenyl or heteroaryl ring may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; and wherein R<sub>2</sub> can form a 3-7 heteroalkyl or alkyl with R<sub>10</sub>, R<sub>11</sub>, or R<sub>12</sub>;

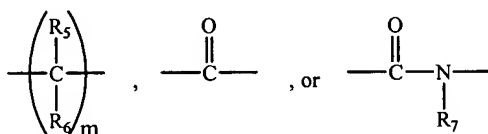
R<sub>3</sub> is hydrogen; carboxylic acid or ester; straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl, in which the branched alkyl chains are allowed to also form a 3-7 member heteroalkyl or alkyl ring; phenyl or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; phenoxy phenyl where each phenyl may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; phenyl or heteroaryl piperazine where the phenyl or heteroaryl ring may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester;

R<sub>4</sub> is hydrogen; straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl, in which the branched alkyl chains are allowed to also form a 3-7 member heteroalkyl or alkyl ring; (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl; phenyl or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-

C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; phenoxy phenyl where each phenyl may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; phenyl or heteroaryl piperazine where the phenyl or heteroaryl ring may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; or form a 3-7 member heteroalkyl or alkyl with Z<sub>1</sub> or R<sub>1</sub>;

X is N or CH

Z<sub>1</sub> is



wherein

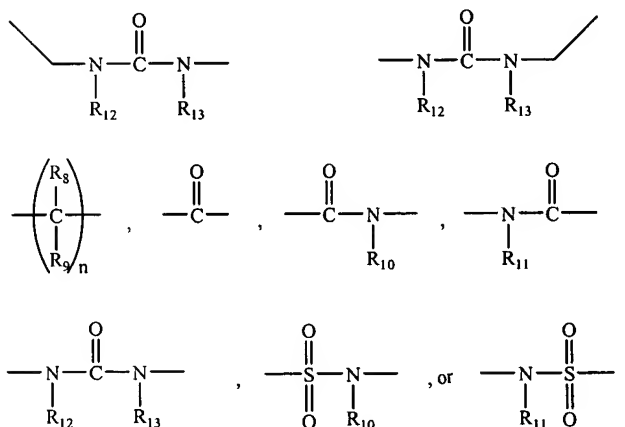
each occurrence of R<sub>5</sub> and R<sub>6</sub> is independently hydrogen straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl, sulfonamide, or halogen;

m is 0, 1, or 2; and

R<sub>7</sub> is hydrogen; straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl; phenyl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino,

amino(C<sub>1</sub>-C<sub>6</sub> alkyl) , -S(C<sub>1</sub>-C<sub>6</sub> alkyl) , or carboxylic acid or ester; or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl) , -S(C<sub>1</sub>-C<sub>6</sub> alkyl) , or carboxylic acid or ester; and

Z<sub>2</sub> is



wherein

each occurrence of R<sub>8</sub> and R<sub>9</sub> is independently straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl, sulfonamide, or halogen;

n is 0, 1, or 2; and

R<sub>10</sub>-R<sub>13</sub> are each independently hydrogen; straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl; phenyl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl) , or carboxylic acid or ester; or heteroaryl which may be unsubstituted, mono-, di- or

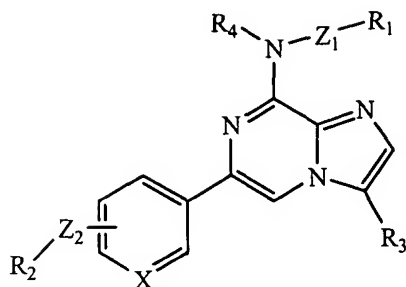
trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester;

and wherein, when R<sub>3</sub> is hydrogen and R<sub>4</sub> is hydrogen, or when R<sub>3</sub> and R<sub>1</sub> are hydrogen

and Z<sub>1</sub> is  $\left( \begin{array}{c} R_5 \\ | \\ -C- \\ | \\ R_6 \end{array} \right)_m$  wherein m is 0, the combination of Z<sub>2</sub>-R<sub>2</sub> is not hydrogen, hydroxy, halogen, hydroxyamide, amino, hydroxyalkyl, aminoalkylamide, alkylamide, arylamide or alkoxy, or

wherein when R<sub>3</sub> is hydrogen, R<sub>4</sub> and Z<sub>1</sub>, or R<sub>4</sub> and R<sub>1</sub> do not form a morpholino, piperazinyl, or 1,4-diazepanyl group when the combination of Z<sub>2</sub>-R<sub>2</sub> is hydrogen, hydroxy, halogen, hydroxyamide, amino, hydroxyalkyl, aminoalkylamide, alkylamide, arylamide or alkoxy.

## 2. A compound having Formula 2:



Formula 2

a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, prodrug, or mixtures thereof, wherein

$R_1$  is phenyl or heteroaryl ring which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, sulfonamide, halogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  perfluoroalkyl,  $C_1$ - $C_6$  perfluoroalkoxy,  $-S(C_1$ - $C_6$  alkyl), mono- or di( $C_1$ - $C_6$  alkyl)amino, mono- or di( $C_1$ - $C_6$  alkyl)amino( $C_1$ - $C_6$  alkyl), or carboxylic acid or ester;

$R_2$  is phenyl or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  perfluoroalkyl,  $C_1$ - $C_6$  perfluoroalkoxy, ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkoxy, ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkyl, mono- or di( $C_1$ - $C_6$  alkyl)amino, amino( $C_1$ - $C_6$  alkyl),  $-S(C_1$ - $C_6$  alkyl), or carboxylic acid or ester; phenoxy phenyl where each phenyl may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  perfluoroalkyl,  $C_1$ - $C_6$  perfluoroalkoxy, ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkoxy, ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkyl, mono- or di( $C_1$ - $C_6$  alkyl)amino, amino( $C_1$ - $C_6$  alkyl),  $-S(C_1$ - $C_6$  alkyl), or carboxylic acid or ester; phenyl or heteroaryl piperazine where the phenyl or heteroaryl ring may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  perfluoroalkyl,  $C_1$ - $C_6$  perfluoroalkoxy, ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkoxy, ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkyl, mono- or di( $C_1$ - $C_6$  alkyl)amino, mono- or di( $C_1$ - $C_6$

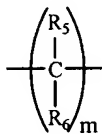
alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; and wherein R<sub>2</sub> can form a 3-7 heteroalkyl or alkyl with R<sub>10</sub>, R<sub>11</sub>, or R<sub>12</sub>;

R<sub>3</sub> is hydrogen; or carboxylic acid or ester;

R<sub>4</sub> is hydrogen; straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl, in which the branched alkyl chains are allowed to also form a 3-7 member heteroalkyl or alkyl ring; or (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl;

X is N or CH

Z<sub>1</sub> is

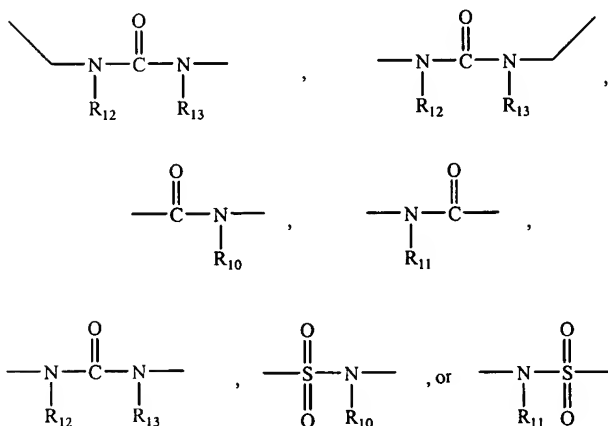


wherein

each occurrence of R<sub>5</sub> and R<sub>6</sub> is independently hydrogen straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl, sulfonamide, or halogen;

m is 0, 1, or 2; and

Z<sub>2</sub> is



wherein

$R_{10}$ - $R_{13}$  are each independently hydrogen; straight or branched chain  $C_1$ - $C_6$  alkyl; phenyl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  perfluoroalkyl,  $C_1$ - $C_6$  perfluoroalkoxy,  $(C_1-C_6)$ -alkyl-oxy- $(C_1-C_6)$ alkoxy,  $(C_1-C_6)$ -alkyl-oxy- $(C_1-C_6)$ alkyl, mono- or di( $C_1$ - $C_6$  alkyl)amino, amino( $C_1$ - $C_6$  alkyl), -S( $C_1$ - $C_6$  alkyl), or carboxylic acid or ester; or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  perfluoroalkyl,  $C_1$ - $C_6$  perfluoroalkoxy,  $(C_1-C_6)$ -alkyl-oxy- $(C_1-C_6)$ alkoxy,  $(C_1-C_6)$ -alkyl-oxy- $(C_1-C_6)$ alkyl, mono- or di( $C_1$ - $C_6$  alkyl)amino, amino( $C_1$ - $C_6$  alkyl), -S( $C_1$ - $C_6$  alkyl), or carboxylic acid or ester;

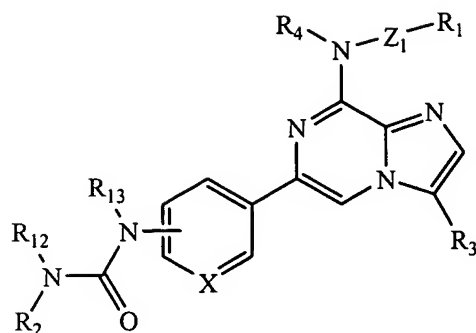
and wherein, when  $R_3$  is hydrogen and  $R_4$  is hydrogen, or when  $R_3$  and  $R_1$  are hydrogen

and  $Z_1$  is  $\left( \begin{array}{c} R_5 \\ | \\ -C- \\ | \\ R_6 \end{array} \right)_m$  wherein m is 0, the combination of  $Z_2$ - $R_2$  is not hydrogen, hydroxy, halogen, hydroxyamide, amino, hydroxyalkyl, aminoalkylamide, alkylamide, arylamide or alkoxy, or

wherein when  $R_3$  is hydrogen,  $R_4$  and  $Z_1$ , or  $R_4$  and  $R_1$  do not form a morpholino, piperazinyl, or 1,4-diazepanyl group when the combination of  $Z_2$ - $R_2$  is hydrogen, hydroxy, halogen, hydroxyamide, amino, hydroxyalkyl, aminoalkylamide, alkylamide, arylamide or alkoxy.



## 3. A compound having Formula 3:



Formula 3

a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, prodrug, or mixtures thereof, wherein

$R_1$  is hydrogen; cyclo-( $C_3$ - $C_6$  alkyl)-methyl; straight or branched chain  $C_1$ - $C_7$  alkyl, in which the branched alkyl chains are allowed to also form a 3-7 member heteroalkyl or alkyl ring; sulfonamide;  $C_1$ - $C_6$  alkoxy; ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkoxy; ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkyl; mono- or di( $C_1$ - $C_6$  alkyl)amino, mono- or di( $C_1$ - $C_6$  alkyl)amino( $C_1$ - $C_6$  alkyl); or phenyl or heteroaryl ring which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, sulfonamide, halogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  perfluoroalkyl,  $C_1$ - $C_6$  perfluoroalkoxy, -S( $C_1$ - $C_6$  alkyl), mono- or di( $C_1$ - $C_6$  alkyl)amino, mono- or di( $C_1$ - $C_6$  alkyl)amino( $C_1$ - $C_6$  alkyl), or carboxylic acid or ester;

$R_2$  is straight or branched chain  $C_1$ - $C_7$  alkyl, in which the branched alkyl chains are allowed to also form a 3-7 member heteroalkyl or alkyl ring; cyclo-( $C_3$ - $C_6$  alkyl)-methyl;  $C_1$ - $C_6$  alkoxy; ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkoxy; ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkyl; phenyl or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  perfluoroalkyl,  $C_1$ - $C_6$  perfluoroalkoxy, ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkoxy, ( $C_1$ - $C_6$ )-alkyl-oxy-( $C_1$ - $C_6$ )alkyl, mono- or di( $C_1$ - $C_6$  alkyl)amino, amino( $C_1$ - $C_6$  alkyl), -S( $C_1$ - $C_6$  alkyl), or carboxylic acid or ester; phenoxy phenyl where each phenyl may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_6$  perfluoroalkyl,  $C_1$ - $C_6$

perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl ), or carboxylic acid or ester; phenyl or heteroaryl piperazine where the phenyl or heteroaryl ring may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl ), or carboxylic acid or ester; and wherein R<sub>2</sub> can form a 3-7 heteroalkyl or alkyl with R<sub>12</sub>;

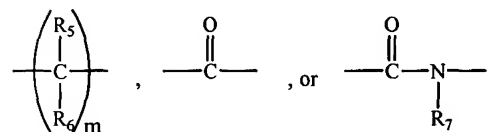
R<sub>3</sub> is hydrogen; carboxylic acid or ester; straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl, in which the branched alkyl chains are allowed to also form a 3-7 member heteroalkyl or alkyl ring; phenyl or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl ), or carboxylic acid or ester; phenoxy phenyl where each phenyl may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; phenyl or heteroaryl piperazine where the phenyl or heteroaryl ring may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl ), or carboxylic acid or ester;

R<sub>4</sub> is hydrogen; straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl, in which the branched alkyl chains are allowed to also form a 3-7 member heteroalkyl or alkyl ring; (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl; phenyl or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-

C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; phenoxy phenyl where each phenyl may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; phenyl or heteroaryl piperazine where the phenyl or heteroaryl ring may be independently unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, sulfonamide, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), or carboxylic acid or ester; or form a 3-7 member heteroalkyl or alkyl with Z<sub>1</sub> or R<sub>1</sub>;

X is N or CH

Z<sub>1</sub> is



wherein

each occurrence of R<sub>5</sub> and R<sub>6</sub> is independently hydrogen straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl, sulfonamide, or halogen;

m is 0, 1, or 2; and

R<sub>7</sub> is hydrogen; straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl; phenyl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy,

(C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl) , -S(C<sub>1</sub>-C<sub>6</sub> alkyl) , or carboxylic acid or ester; or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl) , -S(C<sub>1</sub>-C<sub>6</sub> alkyl) , or carboxylic acid or ester; and

wherein R<sub>12</sub> and R<sub>13</sub> are each independently hydrogen; straight or branched chain C<sub>1</sub>-C<sub>6</sub> alkyl; phenyl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl) , or carboxylic acid or ester; or heteroaryl which may be unsubstituted, mono-, di- or trisubstituted with one or more of hydroxy, nitro, cyano, amino, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>1</sub>-C<sub>6</sub> perfluoroalkyl, C<sub>1</sub>-C<sub>6</sub> perfluoroalkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>1</sub>-C<sub>6</sub>)-alkyl-oxy-(C<sub>1</sub>-C<sub>6</sub>)alkyl, mono- or di(C<sub>1</sub>-C<sub>6</sub> alkyl)amino, amino(C<sub>1</sub>-C<sub>6</sub> alkyl) , -S(C<sub>1</sub>-C<sub>6</sub> alkyl) , or carboxylic acid or ester.

4. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-{8-[(3-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(2-chloro-phenyl)-urea.

5. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-{8-[(3-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-chloro-phenyl)-urea.

6. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-{8-[(3-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(2-methoxy-phenyl)-urea.

7. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-{8-[(3-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-chloro-phenyl)-urea.

8. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-chloro-phenyl)-urea.

9. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-{8-[(3-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-trifluoromethyl-phenyl)-urea.

10. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-{8-[(3-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-trifluoromethoxy-phenyl)-urea.

11. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(2-methylsulfanyl-phenyl)-urea.

12. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[Methyl-(4-methyl-benzyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(2-methylsulfanyl-phenyl)-urea.

13. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-Chloro-phenyl)-3-(3-{8-[methyl-(4-methyl-benzyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-urea.

14. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[Methyl-(4-methyl-benzyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-o-tolyl-urea.

15. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-Chloro-phenyl)-3-{3-[8-(3,4-dihydro-1H-isoquinolin-2-yl)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-urea.

16. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(3,4-Dihydro-1H-isoquinolin-2-yl)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(2-methylsulfanyl-phenyl)-urea.

17. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(3,4-Dihydro-1H-isoquinolin-2-yl)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-o-tolyl-urea.

18. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(3,4-Dihydro-1H-isoquinolin-2-yl)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(2-methoxy-phenyl)-urea.

19. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 8-[(4-Chloro-benzyl)-methyl-amino]-6-{3-[3-(2-trifluoromethyl-phenyl)-ureido]-phenyl}-imidazo[1,2-a]pyrazine-3-carboxylic acid ethyl ester.

20. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 8-[(4-Chloro-benzyl)-methyl-amino]-6-[3-(3-o-tolyl-ureido)-phenyl]-imidazo[1,2-a]pyrazine-3-carboxylic acid ethyl ester.

21. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 8-[(4-Chloro-benzyl)-methyl-amino]-6-{3-[3-(4-chloro-phenyl)-ureido]-phenyl}-imidazo[1,2-a]pyrazine-3-carboxylic acid ethyl ester.

22. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-Chloro-4-fluoro-phenyl)-3-(3-{8-[methyl-(4-methyl-benzyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-urea.

23. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-chloro-4-fluoro-phenyl)-urea.

24. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-benzyl)-3-(4-chloro-phenyl)-urea.

25. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-benzyl)-3-(3-chloro-4-fluoro-phenyl)-urea.

26. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-ethyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-o-tolyl-urea.

27. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-ethyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-chloro-phenyl)-urea.

28. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-ethyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-chloro-4-fluoro-phenyl)-urea.

29. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-propyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-o-tolyl-urea.

30. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-propyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-chloro-4-fluoro-phenyl)-urea.

31. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[Butyl-(4-chloro-benzyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-o-tolyl-urea.



32. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-propyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-chloro-phenyl)-urea.

33. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-propyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-trifluoromethyl-phenyl)-urea.

34. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[Butyl-(4-chloro-benzyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-chloro-phenyl)-urea.

35. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[Butyl-(4-chloro-benzyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-trifluoromethyl-phenyl)-urea.

36. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[Butyl-(4-chloro-benzyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-chloro-4-fluoro-phenyl)-urea.

37. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-trifluoromethyl-phenyl)-urea.

38. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-o-tolyl-urea.

39. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(Benzyl-methyl-amino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(4-chloro-phenyl)-urea.

40. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-trifluoromethoxy-phenyl)-urea.

41. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(5-fluoro-2-trifluoromethyl-phenyl)-urea.

42. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3,5-dichloro-phenyl)-urea.

43. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3,4-dichloro-phenyl)-urea.

44. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(2-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-chloro-phenyl)-urea.

45. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(Methyl-pyridin-4-ylmethyl-amino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(3-trifluoromethyl-phenyl)-urea.

46. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-Chloro-benzyl)-3-(3-{8-[(4-chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-urea.

47. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-(2-methoxy-ethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-chloro-phenyl)-urea.

48. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-(2-methoxy-ethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-trifluoromethyl-phenyl)-urea.

49. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-(2-methoxy-ethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(4-chloro-3-fluoro-phenyl)-urea.

50. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-(2-methoxy-ethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-[4-(4-methyl-piperazin-1-ylmethyl)-phenyl]-urea.

51. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is (2-Methoxy-benzyl)-{6-[3-(4-methoxy-benzylamino)-phenyl]-imidazo[1,2-a]pyrazin-8-yl}-amine.

52. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{4-[8-(2-Methoxy-benzylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-phenyl-urea.

53. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(2-Chloro-phenyl)-3-{4-[8-(2-methoxy-benzylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-urea.

54. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{4-[8-(2-Methoxy-benzylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(2-methoxy-phenyl)-urea.

55. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{4-[8-(2-Methoxy-benzylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(3-methoxy-phenyl)-urea.

56. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is N-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-benzenesulfonamide.

57. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is N-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-benzamide.

58. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 4-Chloro-N-(3-{8-[(4-chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-benzamide.

59. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 2-Chloro-N-(3-{8-[(4-chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-benzamide.

60. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is (4-{8-[(3-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-piperidin-1-yl-methanone.

61. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is (4-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-piperidin-1-yl-methanone.

62. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 4-{6-[4-(Piperidine-1-carbonyl)-phenyl]-imidazo[1,2-a]pyrazin-8-ylamino}-benzoic acid ethyl ester.

63. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 4-(6-{3-[3-(4-Chloro-phenyl)-ureido]-phenyl}-imidazo[1,2-a]pyrazin-8-ylamino)-benzoic acid ethyl ester.

64. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 4-(6-{3-[3-(2-Methylsulfanyl-phenyl)-ureido]-phenyl}-imidazo[1,2-a]pyrazin-8-ylamino)-benzoic acid ethyl ester.

65. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(4-Chloro-benzyl)-methyl-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(2-methylsulfanyl-phenyl)-urea.

66. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is {4-[8-(4-Chloro-phenylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-piperidin-1-yl-methanone.

67. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 3-Methoxy-N-{3-[8-(2-methoxy-benzylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-benzamide.

68. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 2-Methoxy-N-{3-[8-(2-methoxy-benzylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-benzamide.

69. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-Chloro-4-fluoro-phenyl)-3-[3-(8-phenylamino-imidazo[1,2-a]pyrazin-6-yl)-phenyl]-urea.

70. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-Chloro-phenyl)-3-[3-(8-phenylamino-imidazo[1,2-a]pyrazin-6-yl)-phenyl]-urea.

71. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-[3-(8-Phenylamino-imidazo[1,2-a]pyrazin-6-yl)-phenyl]-3-(3-trifluoromethyl-phenyl)-urea.

72. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(2-Chloro-5-trifluoromethyl-phenyl)-3-[3-(8-phenylamino-imidazo[1,2-a]pyrazin-6-yl)-phenyl]-urea.

73. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-Chloro-phenyl)-3-{3-[8-(4-chloro-phenylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-urea.

74. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(4-Chloro-phenylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(3-trifluoromethyl-phenyl)-urea.

75. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-Chloro-4-fluoro-phenyl)-3-{3-[8-(3-chloro-phenylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-urea.

76. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-Chloro-phenyl)-3-{3-[8-(3-chloro-phenylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-urea.

77. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(3-Chloro-phenylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(3-trifluoromethyl-phenyl)-urea.

78. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-Chloro-4-fluoro-phenyl)-3-{3-[8-(2-chloro-phenylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-urea.

79. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-[3-(8-Phenylamino-imidazo[1,2-a]pyrazin-6-yl)-phenyl]-3-(4-trifluoromethyl-phenyl)-urea.

80. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-Chloro-4-fluoro-phenyl)-3-(3-{8-[(pyridin-2-ylmethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-urea.

81. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-Chloro-phenyl)-3-(3-{8-[(pyridin-3-ylmethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-urea.

82. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-Chloro-4-fluoro-phenyl)-3-(3-{8-[(pyridin-3-ylmethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-urea.

83. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-Chloro-phenyl)-3-(3-{8-[(pyridin-4-ylmethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-urea.

84. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{8-[(Pyridin-4-ylmethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-trifluoromethyl-phenyl)-urea.

85. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-Chloro-4-fluoro-phenyl)-3-(3-{8-[(pyridin-4-ylmethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-urea.

86. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(Pyridin-4-ylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(3-trifluoromethyl-phenyl)-urea.

87. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-Chloro-4-fluoro-phenyl)-3-{3-[8-(pyridin-4-ylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-urea.



88. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(4-Chloro-phenyl)-3-(3-{8-[(pyridin-2-ylmethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-urea.

89. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-{[(Pyridin-2-ylmethyl)-amino]-imidazo[1,2-a]pyrazin-6-yl}-phenyl)-3-(3-trifluoromethyl-phenyl)-urea.

90. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(2-Methoxy-6-methyl-phenyl)-3-{3-[8-(pyridin-4-ylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-urea.

91. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(2-Methoxy-5-methyl-phenyl)-3-[3-(8-phenylamino-imidazo[1,2-a]pyrazin-6-yl)-phenyl]-urea.

92. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(3-Chloro-phenylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(2-methoxy-5-methyl-phenyl)-urea.

93. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(2-Chloro-phenylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(2-methoxy-5-methyl-phenyl)-urea.

94. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-{3-[8-(Pyridin-3-ylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-3-(3-trifluoromethyl-phenyl)-urea.

95. A compound as in claim 1, or a pharmaceutically acceptable salt, hydrate, solvate, crystal form, diastereomer, or prodrug thereof, wherein the compound is 1-(3-Chloro-4-fluoro-phenyl)-3-{3-[8-(pyridin-3-ylamino)-imidazo[1,2-a]pyrazin-6-yl]-phenyl}-urea.

96. A compound or salt according to claims 1 to 95, wherein in an in vitro assay of kinase modulation, the compound exhibits a  $IC_{50}$  value less than or equal to 25 micromolar.

97. A pharmaceutical composition comprising a compound or salt according to claims 1 to 95, combined with at least one pharmaceutically acceptable carrier or excipient.

98. A method of treating a kinase-implicated condition in a mammal, comprising administering to the mammal a therapeutically effective amount of a compound or salt of claims 1 to 95.

99. The method of claim 98, wherein the mammal is a human.

100. The method of claim 98, wherein the mammal is a dog or cat.

101. A method for identifying a kinase, comprising contacting an organism, cell, or preparation comprising the kinase with compound or salt according to claim 1, and detecting modulation of an activity of the kinase.